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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/414,004	10/07/1999	VICTOR KATSAP	2925-0411P	2693

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EXAMINER

FERNANDEZ, KALIMAH

ART UNIT PAPER NUMBER

2881

DATE MAILED: 11/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/414,004	KATSAP ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Kalimah Fernandez	2881	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 41-50, 52, 53, 55-67, 69 and 70 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 41, 42, 47-49, 52, 53, 55-59, 64-66, 69 and 70 is/are rejected.
- 7) ☐ Claim(s) 43-46, 50, 60-63 and 67 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

### ***Claim Objections***

1. Claim 55 is objected to because of the following informalities:  
misspelling of "a." Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 41-42,47, 52,55,58-59,64 and 69 are rejected under 35 U.S.C. 102(e) as being anticipated by US Pat No 3,852,633 issued to Hunter.
3. As per claims 41 and 58, Hunter discloses an electron gun (1) having a lens array (12) placed in a drift space, adjacent to the electron gun for splitting the electron beam into a plurality of sub beams (22) to control emittance (see for example col.4, lines 42-58).
4. As per claims 42,47, 59, and 64, Hunter discloses at least one lens array or mesh is placed in the electron gun assembly (see figs.1& 3).
5. As per claims 48 and 65, Hunter discloses two mesh grids (see fig. 3).
6. As per claims 52 and 69, Hunter discloses transparency between 40%-90% (see col.4, lines 8-10).
7. As per claim 55, Hunter discloses producing a divergent beam from an incoming electron beam (col. 6, lines 1-15).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 49,56-57, and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hunter.

10. As per claims 49 and 66, Hunter discloses the claimed invention except for a plurality of mesh grids. However, it has been held that mere duplication of the essential working parts of a device involves routine skill in the art. Here, the duplication of mesh grid (26) cannot support patentability "unless the combination is "synergistic, that is, 'result[ing] in an effect greater than the sum of the several effects taken separately.'" St. Regis Paper Co. v. Bemis Co., 193 USPQ 8 (citing Anderson's -- Black Rock v. Pavement Co., 163 USPQ 673, 674-675.)

11. An ordinary artisan would have obvious motivation to add more grids because Hunter teaches the ability to reduce noise by adding secondary grids (see for example col.6, lines 16-33).

12. Likewise, claim 57 is an obvious modification of Hunter, which requires the routine addition of a mesh grid (see fig. 6).

13. As per claim 56, Hunter discloses emittance control by varying the mesh opening and a pitch (see for example col.6, lines 34-58).

14. Claims 53 and 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hunter as applied to claims 41 and 58 above, and further in view of US Pat No 5,949,078 issued to Ooach et al.

15. Hunter discloses the claimed invention except for a SCALPEL tool, a modified electron beam exposure, or an EBES tool. However, Ooach et al disclose an EBES tool (col.1, lines 15-29).

16. It would have been obvious to an artisan having ordinary skill at the time to modify Hunter with Ooach et al because Ooach et al teach the common knowledge of using an electron gun in a EBES (see for example col.1, lines 15-41).

***Allowable Subject Matter***

17. Claims 43-46,50, 60-63 and 67 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in

independent form including all of the limitations of the base claim and any intervening claims.

18. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to teach or fairly suggest a liner tube and continuous foil.


### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Pat No 6,407,399 issued to Livesay; US Pat No 3,107,313 issued to Hechtel; US Pat No 3,651,360 issued to Sommeria are considered relevant to the claimed invention. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kalimah Fernandez whose telephone number is 571-272-2470. The examiner can normally be reached on Mon-Tues 6:30-3:30; Wed-Thurs 8-5 and Fri. 9am-6 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R Lee can be reached on 571-272-2477. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KF

  
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